

REMARKS

The claims were finally rejected in the Office action of January 14, 2010. This response amends the claims as described below. A Request for Continued Examination is concurrently filed herewith to gain entry of the present claims. In view of the following particulars, reconsideration of the pending application is respectfully requested.

1. In the claims

The preambles of claims 1-7, 9-11, 14-16, 22-24 and 27 are amended such that the claims are now directed to a security paper. Support for this amendment is found on page 1, lines 13-14 and page 7, 18-19, as originally filed.

Claims 1 and 24 are further amended to recite that the security element is at least partially embedded within the security paper. Support for this amendment is found on page 1, lines 13-14 and page 7, 18-19, as originally filed.

Claim 18 is amended to change its dependency from claim 17 to claim 1 in view of the amendment to claim 1.

Claims 17, 20 and 21 are canceled in view of the amendment to claim 1.

Claim 22 is amended to change its dependency from claim 21 to claim 1.

It is clear that there is support in the specification for the amendatory language; thus, no new matter is added by these amendments.

Entry of the Amendment to the claims is respectfully requested in the next Office action.

2. Rejection of claims 1, 2-5, 9, 11, 14, 15 and 17-22 under 35 U.S.C. § 103(a) as being unpatentable over U.S. patent 5,688,587 (*Burchard*) in view of U.S. patent 6,428,051 (*Herrmann*)

Reconsideration of this rejection is respectfully requested in view of the amendments to independent claim 1, from which the remaining claims in the rejection

depend, and the following remarks which demonstrate that the proposed combination of *Burchard* and *Herrmann* fails to render the pending claims *prima facie* obvious.

In observing amended claim 1, the claim is directed to a security paper comprising a security element at least partially embedded within the security paper. The security element includes a cover layer having gaps in the form of characters or patterns forming visually and/or machine readable first information, and a printed image in the form of letters, numbers or geometrical figures forming visually and/or machine readable second information printed within the gaps.

Claim 1 further requires that the information conveyed by the overall contour of the first information is different from the information conveyed by the overall contour of the second information.

The proposed combination of *Burchard* and *Herrmann* does not disclose a security paper comprising a security element at least partially embedded within the security paper, wherein the a security element has gaps forming first information and a printed image forming second information printed within the gaps, and information conveyed by the overall contour of the first information is different from information conveyed by the overall contour of the second information, as required by amended claim 1.

Indeed, the skilled artisan would not understand or be inclined to modify *Burchard* in view of the teachings of *Herrmann*. Particularly, the skilled artisan would not understand to modify the security thread 2 in *Burchard*, which is embedded within a security paper, to have the security features of *Herrmann* which are formed directly in a bank note (security paper).

Burchard discloses a security paper having a security thread 2 embedded in the bank note in certain areas (col. 4, lines 26-29). The security thread consists of a transparent plastic layer 6 provided in some areas with a metallic coating 4. The coating 4 has gaps 5 in the form of characters or patterns. Metal-free intermediate

areas 7 include a print 8 (col. 4, lines 36-47). *Burchard* also discloses that the print 8 and the gaps 5 can be disposed one within the other (Fig. 7; col. 5, lines 20-24).

The rejection acknowledges that *Burchard* does not disclose a security element wherein information conveyed by an overall contour of the first information is different from information conveyed by an overall contour of the second information. The rejection turns to *Herrmann* for this teaching.

Herrmann discloses a bank note 1 having a window-like through opening 4 which is closed by a cover foil 5 (col. 6, lines 45-48). The cover foil includes a security feature 12 which can be a microprint (col. 7, lines 24-26).

The rejection asserts that it would be obvious to modify *Burchard* to replace the structure of Fig. 7 in which the gaps comprise a print with the structure of Fig. 2 in *Herrmann* in which a foil with a microprint is provided over a gap in a security paper.

It is noted that the foil 5 and window 4 in *Herrmann* are disposed directly in the bank note. In contrast to *Herrmann*, the gaps in *Burchard* are disposed in a thread which is further embedded in a bank note.

In fact, *Herrmann* describes the foil/window structure as a more desirable method of providing a security feature to a bank note as opposed to an embedded thread. *Herrmann* states that the foil/window structure avoids production problems associated with embedded threads (col. 2, lines 34-47 and 55-60). That is, *Herrmann* directly teaches away from the use of security threads which are embedded within bank notes.

Further, *Herrmann* provides no teaching that the foil 5 and window 4 can be implemented on the much smaller scale associated with a security thread. Indeed, the skilled artisan simply would not understand or be inclined to modify the security thread (which is further embedded in a bank note) of *Burchard* in view of the foil 5 and window 4 of *Herrmann* which are formed directly into the bank note.

Moreover, the process of embedding the thread into the bank note would be complicated by the cumbersome structure created by adding the foil of *Herrmann* to the thread in *Burchard*. In observing Fig. 2 of *Herrmann*, the foil structure extends above the surface of the bank note. The embedding process would indeed be complicated by a foil which extends above the surface of the thread, as the foil would be prone to snagging on the bank note.

It is further noted that a foil which extends above the surface of the thread would also increase the thickness of the bank notes in the area of the foil. *Herrmann* teaches away from bank notes in which the security thread causes the bank note to be thick in the area of the thread, since the bank notes will not lie flat resulting in problems in processing the bank notes (col. 2, lines 42-50).

As such, the proposed combination of *Burchard* and *Herrmann* does not disclose a security paper comprising a security element at least partially embedded within the security paper, wherein the a security element has gaps forming first information and a printed image forming second information printed within the gaps, and information conveyed by the overall contour of the first information is different from information conveyed by the overall contour of the second information, as recited in amended claim 1.

In view of these observations, it is respectfully submitted that the proposed combination of *Burchard* and *Herrmann* fails to render the pending claims of this rejection *prima facie* obvious. Accordingly, withdrawal of this rejection is kindly requested.

3. Rejection of claims 1, 16 and 23 under 35 U.S.C. § 103(a) as being unpatentable over U.S. patent application publication 2005/0151368 (*Heim*) in view of U.S. patent 5,688,587 (*Burchard*), and further in view of U.S. patent 6,428,051 (*Herrmann*)

Reconsideration of this rejection is respectfully requested in view of the amendments to independent claim 1, from which the remaining claims in the rejection

depend, and the following remarks which demonstrate that the proposed combination of *Heim*, *Burchard* and *Herrmann* fails to render the pending claims *prima facie* obvious.

The proposed combination of *Heim*, *Burchard* and *Herrmann* does not disclose a security paper comprising a security element at least partially embedded within the security paper, wherein the a security element has gaps forming first information and a printed image forming second information printed within the gaps, and information conveyed by the overall contour of the first information is different from information conveyed by the overall contour of the second information, as required by amended claim 1.

Heim discloses a security document 1 having security elements 2,4 embedded in or applied to the security document so that they are visually recognizable from both sides of the security document (paragraphs [0047] and [0051]).

The rejection relies on gaps 9 in a cover layer D of the security document as a teaching of the first information of the pending claims. The rejection acknowledges that *Heim* does not disclose second information that is different from the first information and turns to the *Burchard* patent to cure these deficiencies.

The rejection further acknowledges that *Heim* in view of *Burchard* does not disclose a security element wherein information conveyed by an overall contour of the first information is different from information conveyed by an overall contour of the second information. The rejection turns to *Herrmann* for this teaching.

However, as discussed above, since *Herrmann* discloses a security feature formed directly into the bank note, the skilled artisan would not understand or be inclined to modify the thread of *Heim* or *Burchard* to have the security features of *Herrmann*.

As such, the proposed combination of *Heim*, *Burchard* and *Herrmann* does not disclose a security paper comprising a security element at least partially embedded

within the security paper, wherein the a security element has gaps forming first information and a printed image forming second information printed within the gaps, and information conveyed by the overall contour of the first information is different from information conveyed by the overall contour of the second information, as recited in amended claim 1.

In view of these observations, it is respectfully submitted that the proposed combination of *Heim*, *Burchard* and *Herrmann* fails to render the pending claims of this rejection *prima facie* obvious. Accordingly, withdrawal of this rejection is kindly requested.

Claims 16 and 23 are also considered to be patentable as containing all of the elements of claim 1, as well as for their respective individually recited features.

4. Rejection of claim 3 under 35 U.S.C. § 103(a) as being unpatentable over U.S. patent 5,688,587 (*Burchard*) in view of U.S. patent 6,428,051 (*Herrmann*) and U.S. patent 5,573,639 (*Schmitz*)

Rejection of claims 6, 7 and 27 under 35 U.S.C. § 103(a) as being unpatentable over U.S. patent 5,688,587 (*Burchard*) in view of U.S. patent 6,428,051 (*Herrmann*) and U.S. patent application publication 2005/0151368 (*Heim*)

Rejection of claims 10 and 11 under 35 U.S.C. § 103(a) as being unpatentable over U.S. patent 5,688,587 (*Burchard*) in view of U.S. patent 6,428,051 (*Herrmann*) and U.S. patent 6,344,261 (*Kaule*)

Rejection of claims 24 and 26 under 35 U.S.C. § 103(a) as being unpatentable over U.S. patent 5,688,587 (*Burchard*) in view of U.S. patent 6,352,804 (*Sakamoto*)

Rejection of claim 25 under 35 U.S.C. § 103(a) as being unpatentable over U.S. patent 5,688,587 (*Burchard*) in view of U.S. patent 6,352,804 (*Sakamoto*), and further in view of U.S. patent application publication 2005/0151368 (*Heim*)

Reconsideration of these rejections is requested in view of the amendment to claim 1 and the discussion provided above. The claims of the above-identified rejections are dependent from claim 1. It is respectfully submitted that none of *Schmitz*, *Heim*, *Kaule* and *Sakamoto*, make up for the aforementioned shortcomings of *Burchard* and *Herrmann* as discussed above with respect to amended claim 1, from which all remaining pending claims depend.

Accordingly, it submitted that the proposed combinations of *Schmitz*, *Heim*, *Kaule* and *Sakamoto* with *Burchard*, and *Herrmann* fail to establish a *prima facie* case of obviousness with respect to amended claim 1, from which all remaining pending claims depend. Therefore, withdrawal of these rejections is respectfully requested.

5. Conclusion

As a result of the amendment to the claims, and further in view of the foregoing remarks, it is respectfully submitted that the application is in condition for allowance. Accordingly, it is respectfully requested that every pending claim in the present application be allowed and the application be passed to issue.

If any issues remain that may be resolved by a telephone or facsimile communication with the applicants' attorney, the examiner is invited to contact the undersigned at the numbers shown below.

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Respectfully submitted,

A handwritten signature in black ink, appearing to read "Justin J. Cassell", written in a cursive style.

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